

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-47. (cancelled)

48. (currently amended) A safety restraint apparatus for protecting occupants of a vehicle, the apparatus comprising:

a first cushion portion having deflated and inflated configurations, the first cushion portion being adapted to receive gas from a source of pressurized gas;

a second cushion portion having deflated and inflated configurations;

a first sail portion connected between the first and second cushion portions, the first sail portion being adapted to provide passage of gas from the first cushion portion into the second cushion portion;

wherein the first cushion portion is positioned proximate a first lateral surface of the vehicle in the inflated configuration, so as to protect an occupant of a front seat of the vehicle from lateral impact, and the second cushion portion is positioned proximate a second lateral surface of the vehicle in the inflated configuration, so as to protect an occupant of a rear seat of the vehicle from lateral impact, and each of said first and second cushion portions are fabricated separately from the first sail portion; and

wherein the first cushion portion comprises a first sail port, a first end of the first sail portion being attached to the first sail port;

wherein the first sail portion is fabricated substantially of a material different from that used to substantially fabricate the first and second cushion portions.

49. (previously added) The apparatus of claim 48, wherein the second cushion portion comprises a second sail port, a second end of the first sail portion being attached to the second sail port.

50. (previously amended) The apparatus of claim 49, wherein the first sail portion is attached to the first and second sail ports by an attachment method chosen from the group consisting of sewing, RF welding, chemical bonding, and adhesive bonding.

51. (previously added) The apparatus of claim 50, wherein the first sail portion is RF welded to the first and second sail ports.

52. (previously added) The apparatus of claim 49, wherein the first sail portion forms a substantially gastight seal with the first and second sail ports, thereby maintaining the first and second cushion portions substantially in the inflated configuration during a rollover of the vehicle.

53. (previously added) The apparatus of claim 48, wherein the first and second cushion portions each comprise a polymer coating covering at least a portion of an inner surface of the first and second cushion portions;

the first sail portion comprises a polymer coating covering at least a portion of an outer surface thereof; and

wherein portions of the polymer coatings of the first and second cushion portions are RF welded to mating portions of the polymer coating of the first sail portion.

54. (previously added) The apparatus of claim 48, further comprising:
a third cushion portion having deflated and inflated configurations;
a second sail portion connected between the second and third cushion portions, the second sail portion being adapted to provide passage of gas from the second cushion portion into the third cushion portion; and

wherein the third cushion portion is positioned proximate a third lateral surfaced of the vehicle in the inflated configuration, so as to protect an occupant of an extra seat of the vehicle from lateral impact, and the third cushion portion and the second sail portion are each fabricated separately from each other and from the first cushion portion, the second cushion portion, and the first sail portion, and the second sail portion is RF welded to the second and third cushion portions.

55. (currently amended) A safety restraint apparatus for protecting occupants of a vehicle, the apparatus comprising:

a first cushion portion having deflated and inflated configurations, the first cushion portion being adapted to receive gas from a source of pressurized gas, the first cushion portion further being positioned proximate a first lateral surface of the vehicle in the inflated configuration, so as to provide protection from lateral impact;

a second cushion portion having deflated and inflated configurations, the second cushion portion being positioned proximate a second lateral surface of the vehicle in the inflated configuration, so as to provide protection from lateral impact;

a first sail portion connected between the first and second cushion portions, the first sail portion being attached to the first and second cushion portions in substantially gastight fashion to provide passage of gas from the first cushion portion into the second cushion portion;

wherein the first sail portion is fabricated separately from the first and second cushion portions, the first sail portion being attached to the first and second cushion portions, and the first and second cushion portions each comprise a polymer coating covering at least a portion of an inner surface of the first and second cushion portions, the polymer coatings of the first and second cushion portions each being RF welded to a corresponding polymer coating on an outer surface of the first sail portion;

wherein the first sail portion is fabricated substantially of a material different from that used to substantially fabricate the first and second cushion portions.

56. (currently amended) A safety restraint apparatus for protecting occupants of a vehicle, the apparatus comprising:

a source of pressurized gas;

a first cushion portion having deflated and inflated configurations, the first cushion portion being adapted to receive gas from the source, the first cushion portion comprising a polymer coating covering at least a portion of an inner surface of the first cushion portion being positioned proximate a first lateral surface of the vehicle in the inflated configuration, so as to protect an occupant of a front seat of the vehicle from lateral impact;

a supply tube comprising a polymer coating covering at least a portion of an outer surface of a first end of the supply tube, the supply tube being connected between the first cushion portion and the source and adapted to provide a substantially unrestricted flow of gas therebetween, the supply tube being fabricated separately from the first cushion portion and formed of a substantially flexible material; and

wherein the supply tube is attached to the first cushion portion by an attachment method chosen from the group consisting of sewing, RF welding, chemical bonding, and adhesive bonding;

wherein the first cushion portion and the supply tube are substantially constructed of different materials.

57. (previously added) The apparatus of claim 56, wherein the polymer coatings of the first cushion portion and the supply tube comprise a urethane-based substance.

58. (previously added) The apparatus of claim 56, wherein a portion of the polymer coating of the first cushion portion is RF welded to a mating portion of the polymer coating of the supply tube.

59. (cancelled)

60. (currently amended) A method for manufacturing a safety restraint apparatus for a vehicle, the method comprising:

providing a first cushion portion adapted to receive and retain pressurized gas, the first cushion portion having a first sail port;

providing a second cushion portion adapted to receive and retain pressurized gas, the second cushion portion having a second sail port;

providing a first sail portion adapted to permit passage of gas between first and second ends of the first sail portion; and

connecting the first sail portion to the first and second cushion portions to form an integral safety restraint apparatus adapted to provide side impact protection for an occupant of the vehicle;

wherein connecting the first sail portion to the first and second cushion portions comprises attaching the first end of the first sail portion to the first sail port and attaching the second end of the first sail portion to the second sail port;

wherein the first sail portion is fabricated substantially of a material different from that used to substantially fabricate the first and second cushion portions.

61. (previously added) The method of claim 60, wherein the first and second ends of the first sail portion are attached to the first and second sail ports by an attachment method chosen from the group consisting of sewing, RF welding, chemical bonding, and adhesive bonding.

62. (previously added) The method of claim 60, further comprising forming a polymer coating covering an inner surface of each of the first and second cushion portions, an outer surface of a first end of the first sail portion and an outer surface of a second end of the first sail portion.

63. (previously added) The method of claim 62, wherein connecting the first sail portion to the first and second cushion portions comprises RF welding portions of the polymer coatings of the first and second cushion portions to mating portions of the polymer coatings of the first and second ends of the first sail portion.

64. (cancelled)

65. (previously added) The method of claim 60, further comprising:
providing a third cushion portion adapted to receive and retain pressurized gas;
providing a second sail portion adapted to permit passage of gas between first and second ends of the second sail portion; and
connecting the second sail portion to the second and third cushion portions.

66. (previously added) The method of claim 65, wherein connecting the second sail portion to the second and third cushion portions comprises RF welding a first end of the second sail portion to the second cushion member and RF welding a second end of the second sail portion to the third cushion member, such that the third cushion portion may receive gas from the second cushion portion.

67. (previously added) The safety restraint apparatus of claim 48, wherein the first end of the first sail portion is attached to overlap the first sail port.

68. (currently amended) A safety restraint apparatus for protecting occupants of a vehicle, the apparatus comprising:

a first cushion portion adapted to receive gas from a source of pressurized gas, the first cushion portion comprising a first sail port having an attachment surface, wherein the first cushion is disposable to inflate proximate a first lateral surface of the vehicle to provide lateral impact protection;

a first sail comprising a first end and a second end, wherein the first end comprises an attachment surface RF welded to the attachment surface of the first sail port to enable the first sail portion to convey gas from the first cushion portion to a second cushion portion disposable to inflate proximate a second lateral surface of the vehicle to provide lateral impact protection;

wherein the first cushion portion and the first sail are substantially constructed of different materials.

69. (previously added) The safety restraint apparatus of claim 68, wherein the second end of the first sail portion comprises an attachment surface, the safety restraint apparatus further comprising a second cushion portion comprising second sail port having an attachment surface attached to the attachment surface of the second end of the first sail portion.

70. (previously amended) The method of claim 60, wherein attaching the first end of the first sail portion to the first sail port comprises overlapping the first end of the first sail portion with the first sail port.

71. (currently amended) A method for manufacturing a safety restraint apparatus for a vehicle, the method comprising:

providing a first cushion portion adapted to receive gas from a source of pressurized gas, the first cushion portion comprising a first sail port having an attachment surface, wherein the first cushion is disposable to inflate proximate a first lateral surface of the vehicle to provide lateral impact protection;

providing a first sail portion comprising a first end and a second end, wherein the first end comprises an attachment surface; and

RF welding the attachment surface of the first end of the first sail portion to the attachment surface of the first sail port to enable the first sail portion to convey gas from the first cushion portion to a second cushion portion disposable to inflate proximate a second lateral surface of the vehicle to provide lateral impact protection;

wherein the first sail portion is fabricated substantially of a material different from that used to substantially fabricate the first cushion portion.

72. (previously amended) The method of claim 71, wherein the second end of the first sail portion comprises an attachment surface, the method further comprising:

providing a second cushion portion comprising a second sail port having an attachment surface; and

attaching the attachment surface of the second end of the first sail portion to the attachment surface of the second sail port of the second cushion.

73. (previously added) A safety restraint apparatus for protecting occupants of a vehicle, the apparatus comprising:

a first cushion portion having deflated and inflated configurations, the first cushion portion being adapted to receive gas from a source of pressurized gas;

a second cushion portion having deflated and inflated configurations;

a first sail portion connected between the first and second cushion portions, the first sail portion being adapted to provide passage of gas from the first cushion portion into the second cushion portion;

wherein the first sail portion is fabricated substantially of a material different from that used to substantially fabricate the first and second cushion portions.

74. (previously added) The safety restraint apparatus of claim 73, wherein the first and second cushion portions each comprise a polymer coating covering at least a portion of an inner surface of the first and second cushion portions, the polymer coatings of the first and second cushion portions each being RF welded to a corresponding polymer coating on an outer surface of the first sail portion.

75. (previously added) A method for manufacturing a safety restraint apparatus for a vehicle, the method comprising:

providing a first cushion portion adapted to receive and retain pressurized gas, the first cushion portion having a first sail port;

providing a second cushion portion adapted to receive and retain pressurized gas, the second cushion portion having a second sail port;

providing a first sail portion adapted to permit passage of gas between first and second ends of the first sail portion, wherein the first sail portion is fabricated substantially of a material different from that used to substantially fabricate the first and second cushion portions; and

attaching the first end of the first sail portion to the first sail port and attaching the second end of the first sail portion to the second sail port to form an integral safety restraint apparatus.

76. (previously added) The method of claim 75, wherein the first and second cushion portions each comprise a polymer coating covering at least a portion of an inner surface of the first and second cushion portions, wherein attaching the first end of the first sail portion to the first sail port and attaching the second end the first sail portion to the second sail port comprises RF welding each of the polymer coatings of the first and second cushion portions to a corresponding polymer coating on an outer surface of the first sail portion.